

Serial No. 10/813,169
Reply to Office Action dated August 2, 2005

Docket No. INTEL-0062

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A resonance suppression circuit comprising:
a band-pass filter portion to pass signals associated with a resonance frequency,
the band-pass filter portion including an operational amplifier;
a comparator portion, coupled to the band-pass filter portion, to sense voltage fluctuation at approximately the resonant frequency; and
a current dissipation portion, coupled to the band-pass filter portion and coupled to receive a supply voltage, the current dissipation portion to clamp a the supply voltage based on the signals passing through the band-pass filter portion.
2. (Original) The resonance suppression circuit of claim 1, further comprising an amplification portion coupled between the comparator portion and the current dissipation portion, the amplification portion to receive a trigger signal from the comparator portion and to delay turning ON the current dissipation portion.
3. (Previously Presented) The resonance suppression circuit of claim 2, wherein the comparator portion and the amplification portion operate such that the current dissipation

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portion is OFF when there is substantially no noise on a power grid coupled to the resonance suppression circuit.

4. (Original) The resonance suppression circuit of claim 1, wherein the current dissipation portion comprises a MOS transistor.

5. (Canceled)

6. (Original) The resonance suppression circuit of claim 1, wherein the band-pass filter portion comprises a resistor and a capacitor coupled in parallel with the operational amplifier such that the resistor and the capacitor are coupled to both an input of the operational amplifier and to an output of the operational amplifier.

7. (Original) The resonance suppression circuit of claim 1, wherein the band-pass filter portion comprises a resistor and a capacitor coupled in series to an input of the operational amplifier.

8. (Previously Presented) The resonance suppression circuit of claim 1, wherein the band-pass filter portion comprises a first resistor, a second resistor, a first capacitor and a second capacitor, and a filter gain of the band-pass filter portion is based on a ratio of impedance of the

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first resistor and the first capacitor and an impedance of the second resistor and the second capacitor.

9. (Previously Presented) The resonance suppression circuit of claim 8, wherein the first resistor and the first capacitor are coupled to both an input and an output of the operational amplifier, and the second capacitor and the second resistor are coupled in series to the input of the operational amplifier.

10. (Cancelled)

11. (Currently Amended). A chip comprising:
a power grid to distribute a voltage; and
a resonance suppression circuit to suppress resonance on the power grid, the resonance suppression circuit comprising:

a band-pass filter portion having an operational amplifier coupled between two signal lines of the power grid;

a comparator portion, coupled to the band-pass filter portion, to receive signals passing through the band-pass filter portion, the comparator portion to sense voltage fluctuation at approximately a resonant frequency; and

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a current dissipation portion, coupled to the ~~band-pass filter current~~
~~dissipation~~ portion, to clamp the voltage on the power grid based on the signals passing through
the band-pass filter portion.

12. (Canceled)

13. (Currently Amended) The chip of claim [[12]]11, further comprising an
amplification portion coupled between the comparator portion and the current dissipation
portion, the amplification portion to receive a trigger signal from the comparator portion and to
delay a turning ON of the current dissipation portion.

14. (Previously Presented) The chip of claim 13, wherein the comparator portion and
the amplification portion operate such that the current dissipation portion is OFF when there is
substantially no noise on the power grid.

15. (Original) The chip of claim 11, wherein the current dissipation portion
comprises a MOS transistor.

16. (Original) The chip of claim 11, wherein the band-pass filter portion comprises a
resistor and a capacitor coupled in parallel with the operational amplifier such that the resistor

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and the capacitor are coupled to both an input of the operational amplifier and an output of the operational amplifier.

17. (Original) The chip of claim 11, wherein the band-pass filter portion comprises a resistor and a capacitor coupled in series to an input of the operational amplifier.

18. (Canceled)

19. (Previously Presented) The chip of claim 11, wherein the band-pass filter portion comprises a first resistor, a second resistor, a first capacitor and a second capacitor, and a filter gain of the band-pass filter portion is based on a ratio of impedance of the first resistor and the first capacitor and an impedance of the second resistor and the second capacitor.

20. (Original) The chip of claim 19, wherein the first resistor and the first capacitor are coupled to both an input and an output of the operational amplifier, and the second capacitor and the second resistor are coupled in series to the input of the operational amplifier.

21. (Original) The chip of claim 11, wherein the band-pass filter portion is tolerant to process variations.

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22. (Currently Amended) A system comprising:
a power supply to supply power; and
a chip coupled to the power supply to receive the power, the chip comprising:
a power grid to distribute a voltage based on the received power; and
a resonance suppression circuit including:
a band-pass filter portion having an inverter coupled between two signal
lines of the power grid, the band-pass filter portion including a first capacitor and a first resistor
both coupled to an input and to an output of the inverter;
a comparator portion, coupled to the band-pass filter portion, to receive
signals passing through the band-pass filter portion, the comparator portion to sense voltage
fluctuation at approximately a resonant frequency, and
a current dissipation portion, coupled to the ~~band-pass filter-comparator~~
portion, to clamp a voltage on the power grid based on signals passing through the band-pass
filter portion.

23. (Canceled)

24. (Original) The system of claim 22, wherein the band-pass filter portion comprises
a second resistor and a second capacitor coupled in series with an input of the inverter.